

Claims

What is claimed is:

2. 1. A storage system for selectably providing access to a space above a ceiling and for storing articles therein, said system comprising:
 - 5 a frame mounted to the ceiling for pivotal movement between a storage position wherein the frame is disposed substantially within the space and an access position;
a support having a supporting surface;
a pivot mechanism coupling the support to the frame, said pivot
10 mechanism being configured to maintain the supporting surface in a substantially fixed orientation relative to the ceiling as the frame is moved between the storage position and the access position; and,
an actuator coupled to the frame and the support configured to drive the support between the access position and the storage position and to cooperate with the
15 pivot mechanism to maintain the support surface in the fixed orientation.
- 20 2. The device of claim 1 wherein the actuator is a motor and further comprising a shaft coupled to the motor, a lift pulley coupled to the shaft, a support pulley coupled to the shaft, a lift coupler coupled at a first end to the frame and configured to wind about the lift pulley, a support coupler coupled at a first end to the support and configured to wind about the support pulley and wherein upon actuation of the motor in a first direction the shaft is driven to induce the lift coupler and support coupler to wind about the lift pulley and support pulley, respectively.

3. The device of claim 2 wherein the lift pulley and support pulley are rigidly mounted to the shaft and the sizes of the lift and support pulleys are selected to induce the support surface to remain in the fixed orientation as the frame is moved between the access and storage positions.

5 4. The device of claim 2 and further comprising a brake stopping rotation of the shaft in a direction that would allow the frame to pivot toward the access position.

5. The device of claim 2 wherein the lift coupler is a cable removably affixed at the first end to the frame to facilitate removal of the coupler from the frame to
10 permit the frame to pivot into the access position upon motor failure.

6. The device of claim 2 and further comprising a remote control system for wirelessly actuating the motor.

7. The device of claim 2 and further comprising a contact switch mounted to the frame to stop movement of the frame when the contact switch is actuated.

15 8. A storage system for mounting to a ceiling or overhead structure, the storage system comprising

a mounting frame mounted to the ceiling or overhead structure;

a storage compartment coupled to the mounting frame for pivotal movement relative to the ceiling or overhead structure between an access position and a
20 storage position, said storage compartment comprising a frame and at least one shelf having a support surface, said shelf being mounted to the frame for pivotal movement relative thereto;

a lift mechanism coupled to the frame of the storage compartment and configured to raise the storage compartment from the access position to the storage position;

5 a tilt mechanism coupled to the shelf and configured to maintain the support surface of the shelf in a substantially consistent orientation relative to the ceiling when the storage compartment is in the access position, the storage position and positions between the access and storage positions;

an actuator driving the lift and tilt mechanisms to move the storage compartment between the access and storage positions and maintain the relative
10 orientation of the support surface of the shelf during such movement.

9. The device of claim 8 wherein the actuator is a motor and further comprising a shaft drivably coupled to the actuator for rotation thereby.

10. The device of claim 9 and further comprising a brake coupled to the motor and the shaft and acting to prevent rotation of the shaft when the motor is not
15 being driven.

11. The device of claim 8 wherein the actuator is a motor and further comprising a gear box coupled between the shaft and the motor.

12. A storage system for mounting to a ceiling or overhead structure of a building having an electrical supply and a water supply and a drain, the storage system
20 comprising

a mounting frame portion of which are disposed adjacent the ceiling or overhead structure;

a storage compartment coupled to the mounting frame for pivotal movement relative to the ceiling or overhead structure between an access position and a storage position, said storage compartment comprising a frame and at least one shelf having a support surface, said shelf being mounted to the frame for pivotal movement
5 relative thereto;

a lift mechanism coupled to the frame of the storage compartment and configured to raise the storage compartment from the access position to the storage position;

a tilt mechanism coupled to the shelf and configured to maintain the
10 support surface of the shelf in a substantially consistent orientation relative to the ceiling when the storage compartment is in the access position, the storage position and positions between the access and storage positions;

a sink mounted to the frame; and

water supply lines extending between the sink and the water supply to
15 provide water to the sink.

13. The device of claim 12 and further comprising an actuator driving the lift and tilt mechanisms to move the storage compartment between the access and storage positions and maintain the relative orientation of the support surface of the shelf during such movement.

20 14. The device of claim 12 and further comprising a drain tube configured to be extended to communicate between the sink and the drain when in an extended position and to be retracted to a position wherein the drain tube is within the frame.

15. The device of claim 12 and further comprising a refrigerator mounted to the frame and an electrical outlet powered by the electrical outlet mounted to the storage system for powering the refrigerator.

16. A storage system for mounting to a ceiling or overhead structure of a building having an electrical supply, the storage system comprising:

a mounting frame portions of which are disposed adjacent the ceiling or overhead structure;

a storage compartment coupled to the mounting frame for pivotal movement relative to the ceiling or overhead structure between an access position and a storage position, said storage compartment comprising a frame and at least one shelf having a support surface, said shelf being mounted to the frame for pivotal movement relative thereto;

a lift mechanism coupled to the frame of the storage compartment and configured to raise the storage compartment from the access position to the storage position;

a tilt mechanism coupled to the shelf and configured to maintain the support surface of the shelf in a substantially consistent orientation relative to the ceiling or overhead structure when the storage compartment is in the access position, the storage position and positions between the access and storage positions; and

a television mounted to the frame and powered by the electrical supply.

17. The device of claim 16 and further comprising an actuator driving the lift and tilt mechanisms to move the storage compartment between the access and

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storage positions and maintain the relative orientation of the support surface of the shelf during such movement.